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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Gareth R. Williams

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KING & SPALDING LLP
1180 PEACHTREE STREET
ATLANTA, GA 30309-3521

EXAMINER

LEA, CHRISTOPHER RAYMOND

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1619

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/571,518	Applicant(s) WILLIAMS ET AL.	
	Examiner Christopher R. Lea	Art Unit 1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 24-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/22/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This application is a 371 (national stage application) of PCT/US04/30647, which claims priority to US provisional application 60/504033.

Claims 1-32 are pending. Claims 1-23 are under examination.

Election/Restrictions

1. Applicant's election of Group I, claims 1-23, in the reply filed on October 10, 2008, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 24-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.
3. Applicant's response to the species election outlined in the office action dated May 8, 2008, is non-compliant. However, in the interest of compact prosecution, the examiner has withdrawn the species election requirement and will examine all the claims of the Group I invention.

Information Disclosure Statement

4. The information disclosure statement(s) (IDS) submitted on May 22, 2006, was filed before the mailing date of the first office action on the merits. The submission is in

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compliance with the provisions of 37 CFR 1.97 & 1.98. Accordingly, the information disclosure statement has been considered by the examiner.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-13 & 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinzl (US PreGrant Publication 2003/0166483).

Applicant claims

Applicant claims a preservative composition which comprises 3-iodo-2-propynyl butyl carbamate (IPBC) and an amphoteric compound which is a betaine or weak nitrogen amphoteric and said composition has use in a personal care, household or industrial product.

Determination of the scope and content of the prior art (MPEP 2141.01)

Heinzl teaches, as a whole, 3-iodo-2-propynyl carbamates as an antimicrobial agent in a variety of compositions.

Claim 1: Heinzl teaches IPBC as the preferred 3-iodo-2-propynyl carbamate (paragraph 15). Heinzl teaches adding an emulsifier to the IPBC compositions, in particular Heinzl teaches zwitterionic and ampholytic surfactants, specifically betaines (paragraphs 30, 48 & 49).

Claims 2, 4, & 6: Heinzl teaches cocoamidopropyl (dimethyl) betaine (a carboxy betaine) as the particularly preferred zwitterionic surfactant.

Claim 3: Heinzl teaches the ratio of emulsifier to IPBC is between 1:100 and 100:1, preferably 1:25 and 25:1, and more preferably 1:10 and 10:1, all of which either encompass or overlap the claimed range of 0.5:1 to 20:1 (paragraph 50).

Claim 5: Heinzl teaches cocoalkyl dimethyl ammonium glycinate ($R-N^+(CH_3)_2-CH_2-COO^-$, $R=C_{12}$) as a zwitterionic surfactant useful in the compositions (paragraph 48).

Claim 7: Heinzl teaches IPBC as the preferred 3-iodo-2-propynyl carbamate (paragraph 15). Heinzl teaches adding an emulsifier to the IPBC compositions, in particular Heinzl teaches zwitterionic and ampholytic surfactants (paragraphs 30, 48 & 49).

Claim 8: Heinzl teaches imidazolines among the zwitterionic surfactants useful in the compositions (paragraph 48).

Claim 9: Heinzl teaches the ratio of emulsifier to IPBC is between 1:100 and 100:1, preferably 1:25 and 25:1, and more preferably 1:10 and 10:1, all of which either encompass or overlap the claimed range of 0.5:1 to 20:1 (paragraph 50).

Claim 10: Heinzl teaches N-hydroxyethyl-N-alkylaminopropyl glycines (which includes cocoamphoacetate) as ampholytic surfactants useful in the compositions (paragraph 49).

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Claim 11: Heinzl teaches cocoacylaminoethyl hydroxyethyl carboxymethyl glycinate (cocoamphocarboxyglycinate) as a surfactant useful in the composition (paragraph 48).

Claims 12 & 13: Heinzl teaches N-alkyliminodipropionic acids (which would include C12 alkyliminodipropionate) as ampholytic surfactants useful in the compositions (paragraph 49). These compounds correspond to the first formula in claim 13 (when $n=0$).

Claim 17: Heinzl teaches adding protective colloids to the composition, some of which may function as antifoaming agents (paragraph 51).

Claim 18: Heinzl teaches the IPBC composition as part of a hand washing composition (paragraphs 28 & 61)

Claim 19: Heinzl teaches the IPBC composition as part of detergents, cleaning compositions, and preparations for finishing textiles, hides, skins and leathers (paragraphs 28 & 61).

**Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)**

The difference between the teachings of Heinzl and the instant claims is that Heinzl does not teach a specific embodiment that meets all the claim limitations.

**Finding of *prima facie* obviousness
Rationale and Motivation (MPEP 2142-2143)**

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to formulate a composition containing IPBC and an amphoteric compound, such as a betaine or weak nitrogen amphoteric, in order to improve the dissolution and stability of the IPBC and produce the instant invention. The skilled artisan would have been motivated to formulate the composition with IPBC and an amphoteric because Heinzl teaches that the emulsifiers, such as zwitterionic and ampholytic surfactants, improve the stability of IPBC compositions.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in formulating a composition containing IPBC and an amphoteric compound and producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

10. Claims 14-16 & 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinzl as applied to claims 1 & 7 above, and further in view of Williams et al. (US Patent 5,916,356).

Applicant claims

Applicant claims a composition containing IPBC and an amphoteric compound that may be useful as a wood preservative and may further contain a biocide.

**Determination of the scope and content of the prior art
(MPEP 2141.01)**

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Since claims s 14-17 & 20-23 depend from claims 1 & 7, rejection of claims 1 & 7 under 35 USC 103 is also appropriate. Detailed discussion of the rejection of claims 1 & 7 and the teachings of Heinzl appears above.

**Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)**

The difference between the teachings of Heinzl and the instant claims is that Heinzl fails to teach adding a biocide additive and is silent as to the use of the composition in wood preservation. This deficiency in Heinzl is cured by the teachings of Williams et al.

Claims 14-16: Williams et al. teach a composition that may contain propiconazole (a biocide additive, column 3 lines 45-49) and IPBC (column 5 lines 30-64).

Claim 20: Williams et al. teach using the composition for preserving wood (column 2 lines 47-54).

Claim 21: As to the claimed property of providing stain resistance to wood, where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. Further, The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to

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applicant to show otherwise. Absent evidence to the contrary, the prior art composition must possess the claimed property of providing stain resistance to wood, since it is substantially identical to the claimed composition (See MPEP § 2112.01).

Claims 22 & 23: Williams et al. teach a composition that may contain propiconazole (a biocide additive, column 3 lines 45-49) and IPBC (column 5 lines 30-64). When the components of a composition are known and in the absence of a showing of criticality of a claimed range, it is within the purview of the skilled artisan to discover the optimum and workable ranges for each component through routine experimentation.

**Finding of *prima facie* obviousness
Rationale and Motivation (MPEP 2142-2143)**

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to add propiconazole to the IPBC/amphoteric composition and use the IPBC/amphoteric composition in the preservation of wood and produce the instant invention. The skilled artisan would have been motivated to add propiconazole to the IPBC/amphoteric composition because Williams et al. teach using IPBC and propiconazole together and they both have utility as antimicrobial, particularly antimycotic; therefore, it would have been obvious to the skilled artisan to combine them. The skilled artisan would have been motivated to use the IPBC/amphoteric composition as a wood preservative because Williams et al. teaches applying IPBC-containing compositions as wood preservatives, hence IPBC is known to be useful as a wood preservative.

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In light of the forgoing discussion, one of ordinary skill in the art would have concluded that the subject matter defined by the instant claims would have been obvious to one of ordinary skill within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in adding propiconazole to the IPBC/amphoteric composition and using the IPBC/amphoteric composition in the preservation of wood and producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. GB2354771A teaches a composition containing betaines, particularly cocoamidopropyl betaine, and IPBC.

Claims 1-23 are rejected. Claims 24-32 are withdrawn. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lea whose telephone number is (571)270-5870. The examiner can normally be reached on Mon-Thu 7:30-5:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571)272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616